



FARFISA

ELECTRONIC ORGAN

MOD. 4290 R

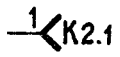
SCHEMATIC DIAGRAM

D.P. 1124763

1st EDITION

OCTOBER '78

LEGENDA

-  FEMALE CONNECTOR SYMBOL (es. K2. 1)
-  PLUG IN CONNECTOR SYMBOL
-  OUTPUT SIGNAL (TO DWG...) or (TO PA—...)
-  INPUT SIGNAL (FROM DWG...) or (FROM PA—...)
-  TEST POINT (TP...)
-  CONNECTING POINT (ON p.c.b.)

All resistors 1/4 unless otherwise indicated

All tabswitches shown in OFF position

All keyswitches shown in OFF position

See part list for component part numbers

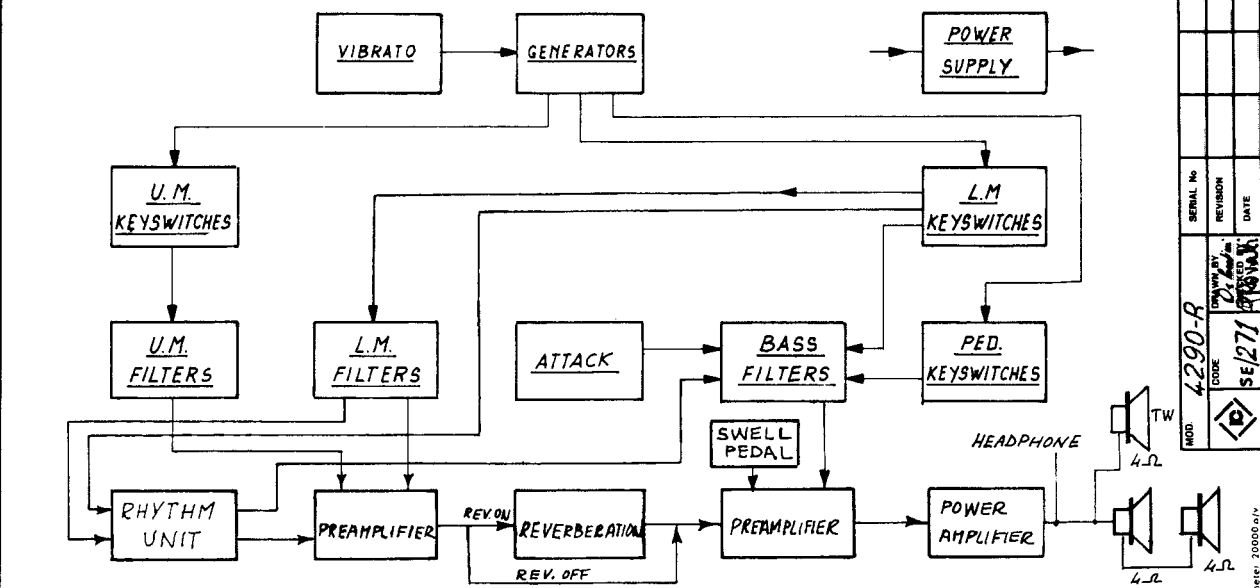
All D.C. voltages measured to ground with a voltmeter 20.000 Ω/V

IMPORTANT : IN ANY CORRESPONDENCE CONCERNING THIS
INSTRUMENT ALWAYS INCLUDE MODEL AND SERIAL
NUMBERS!

PARTS ORDERING – When ordering parts be sure to include the following
information:

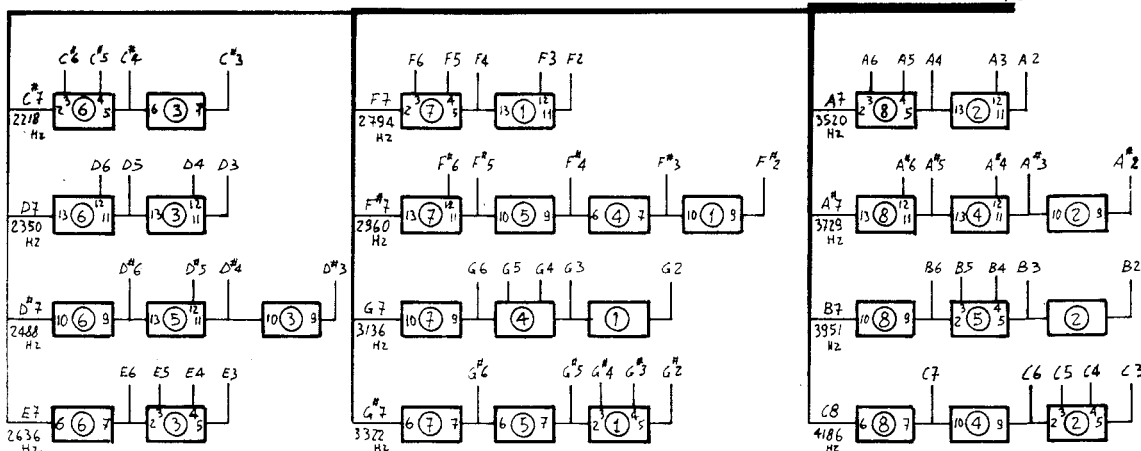
1. Model and serial Number of instrument.
2. Part Code.
3. A description of the Part.
4. Specify how you want the part shipped.

BLOCK DIAGRAM



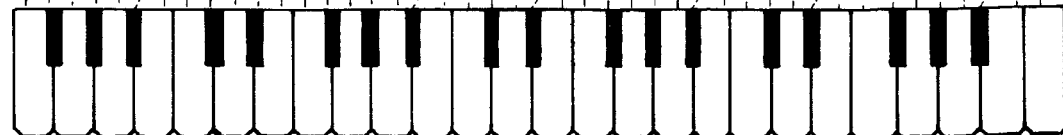
NOTES
 1) All resistors in Ω unless otherwise indicated.
 2) All capacitors shown in pF position.
 3) All capacitors shown in nF position.
 4) See parts list for component part numbers.
 5) All DC voltages measured to ground with a voltmeter 2000Ω/V.

From PA-930/6



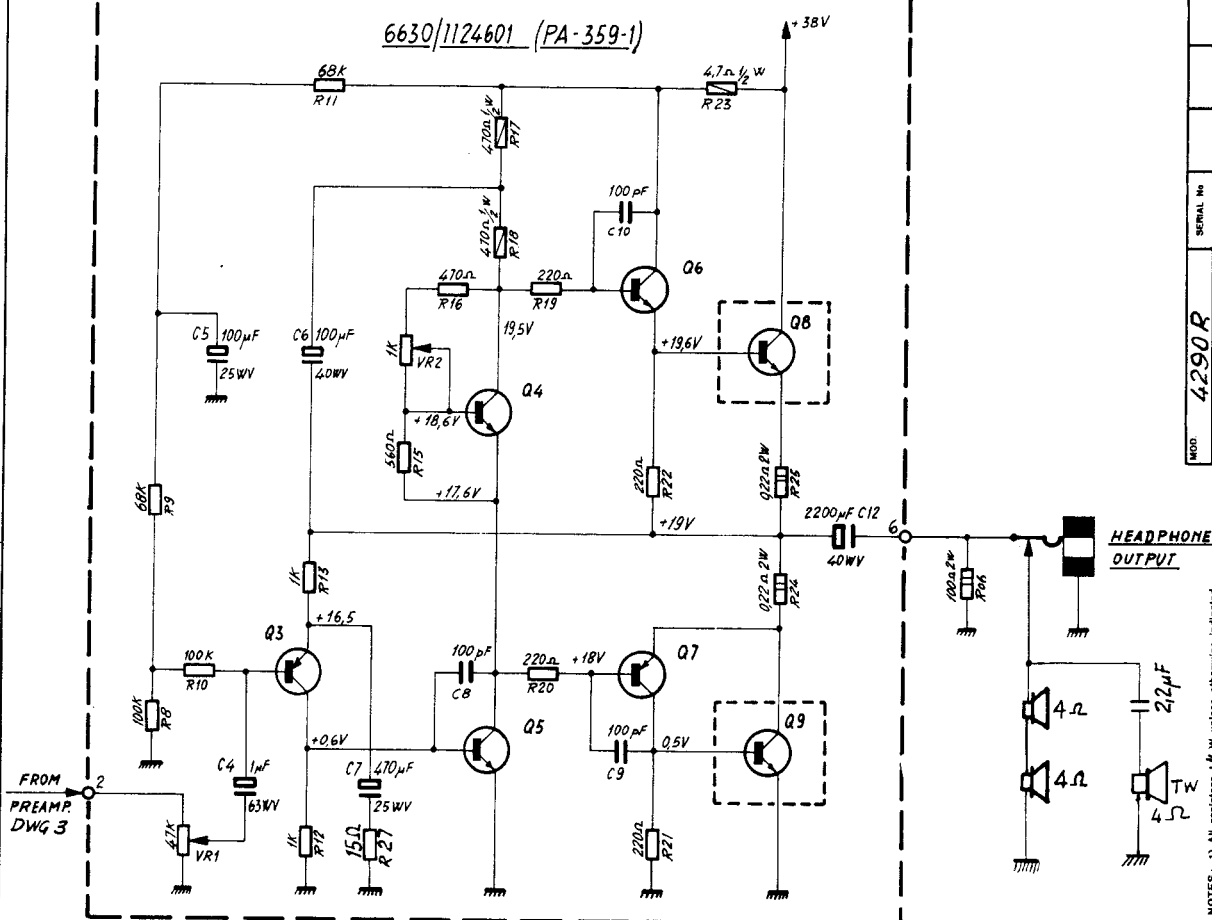
U.M.	16'	I.C.	N°	1	1	1	1	2	2	2	2	3	3	3	3	1	4	4	1	2	4	5	2	6	3	5	3	7	5	4	1	8	4	5	2	6	5	3	7	7	4	5	8	8	5	4			
		PIN	N°	11	9	7	5	11	9	7	5	7	11	9	5	12	7	5	4	12	11	5	4	5	12	11	4	5	9	4	3	5	12	4	3	4	11	12	3	4	11	3	7	4	11	3	9		
	8'	I.C.	N°	1	4	1	2	4	5	2	6	3	5	3	7	5	4	1	8	4	5	2	6	5	3	7	7	4	5	8	4	5	2	6	5	3	7	7	4	5	8	8	5	4					
		PIN	N°	12	7	5	4	12	11	5	4	5	12	11	4	5	9	4	3	5	12	4	3	4	11	12	3	4	11	3	7	4	11	3	9	3	12	9	7	3	12	9	7	3	12	9	7		
	4'	I.C.	N°	7	5	4	1	8	4	5	2	6	5	3	7	7	4	5	8	8	5	4	3	6	6	7	7	7	7	8	8	5	4	TONE GENERATOR C 27 PA-233-6															
		PIN	N°	5	9	4	3	5	12	4	3	4	11	12	3	4	11	3	7	4	11	3	9	3	12	9	7	3	12	9	7	3	13	9	7	3	16	15	4	12	1	13	5	6	12	11	7	8	

L.M.	8'	I.C.	N°	1	1	1	1	2	2	2	2	3	3	3	3	1	4	4	1	2	4	5	2	6	3	5	3	7	5	4	1	8	4	5	2	6	5	3	7	7	4	5	8	8	5	4
		PIN	N°	11	9	7	5	11	9	7	5	7	11	9	5	12	7	5	4	12	11	5	4	5	12	11	4	5	9	4	3	5	12	4	3	4	11	12	3	4	11	3	7	4	11	3



POWER AMPLIFIER

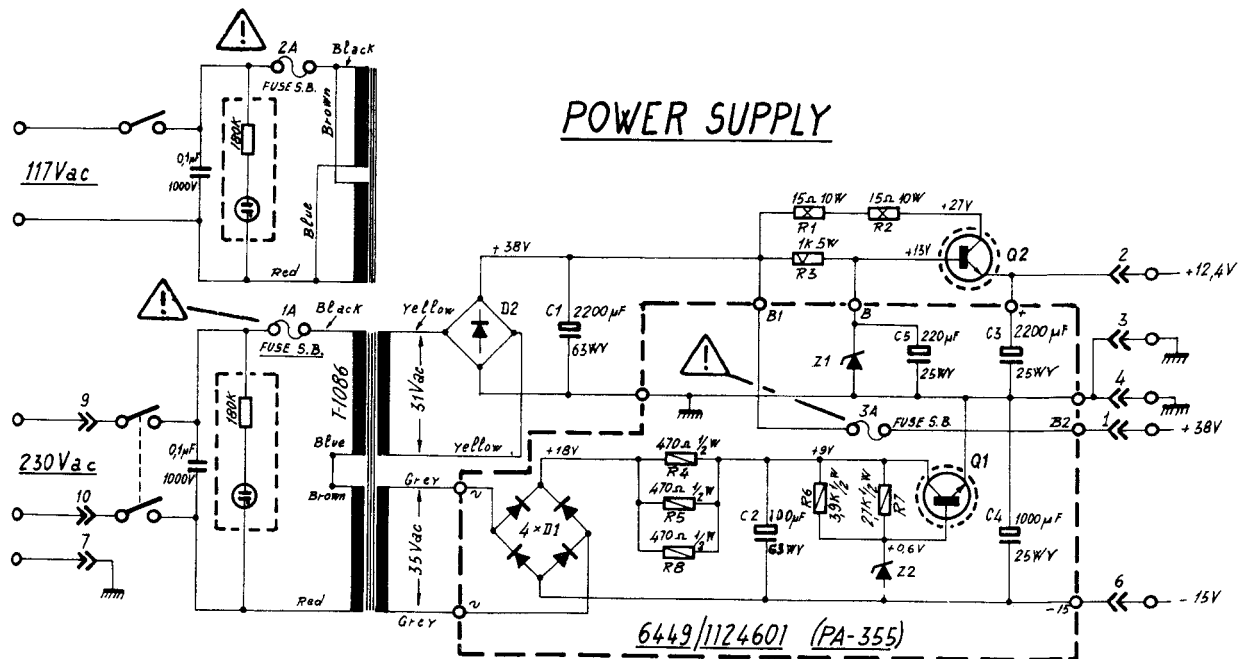
6630/1124601 (PA-359-1)



MOD.	SERIAL No.	REVISION	DATE
4290R			
CODE	SE-277		

NOTES: 1) All resistors 1/4W unless otherwise indicated.
2) All capacitors shown in OFF position.
3) All capacitors shown in OFF position.
4) See parts list for component part numbers.

POWER SUPPLY



N.B: ALL D.C. VOLTAGES MEASURED TO GROUND WITH A VOLTMETER 20000 Ω/V

Model 4290 R

TRANSISTORS (Q) & DIODES (D) LIST

①

Schem. Ref.	Circuit	Type	Part Code
CHASSIS	POWER SUPPLY CHASSIS (DWG. 4/ SE 271)		8000/1124601
Q 2	Series Stabilizer	Westinghouse 156-043 Solitron H 9340	W/1800
D 2	Rectifier Bridge	SIEMENS B 40-C 2200	B/1208
PA 355	VOLTAGE REGULATOR BOARD (DWG 4/ SE 271)		6449/1124601
Q 1	Series Stabilizer	BC 286	W/1601
D 1	Rectifier Diodes (Bridge)	ITT 1N 4002.....	B/1100
Z 1	Voltage Reference-Diode Zener .. (13 V - 1 W)	ITT ZY 13 MOTOROLA 1N 4743-A	B/1418
Z 2	Voltage Reference-Diode Zener .. (15 V - 400 mW)	ITT ZPD 15 MOTOROLA 1N 5245 B	B/1319
PA 359-1	POWER AMPLIFIER BOARD (DWG 4/ SE 271)		6630/1124601
Q 3	Input Preamplifier PNP	SGS IW 9640 - BC 154	W/1500
Q 4	Temperature Compensator	BC 207 A-B BC 209 B-C	W/1401 W/1407 - 1410
Q 5	Driver Amplifier NPN	SGS BC 286	W/1601
Q 6	Driver NPN	SGS BC 286	W/1601
Q 7	Driver PNP	SGS BC 287	W/1702
Q 8 - Q 9	Power Transistors	Westinghouse 156 - 043 Solitron H 9340	W/1800
PA 890	L.M. KEYSWITCHES (DWG 2/SE 271)		5090/1124763
D1 + D 48	Diodes	D 525 A	B/1001

Model 4290 R

TRANSISTORS (Q) & DIODES (D) LIST

2

Schem. Ref.	Circuit	Type	Part Code
<u>PA 930/6</u>	<u>OSCILLATOR (DWG 3/SE 271)</u>		<u>6045/1124761</u>
I.C.c1	Oscillator.....	SN 29730 N.....	W/1009
I.C.c2	Divider.....	G.I.E. AY-I-0212.....	W/1105
I.C.c3	Voltage Regulator.....	SN 72723 N.....	W/1209
Q c 1	Buffer.....	BC 208-B-C.....	W/1404
Dc1+Dc3	Diodes.....	D 525 B-BA 130.....	B/1000-B/1003
 PA 683/2	 KEYSWITCH BOARD U.M. (DWG 3/SE 271)		 6903/1124761
IC 1 ÷ IC 7	Integrated Frequency Divider	GIE AY-1-5050	W/1100 - W/1101
 PA 593/4	 VIBRATO. ATTACK, AUTOMATIC-BASS (DWG 3/SE 271)		 5097/1124763
Q b 1	Vibrato Oscillator	} BC 209-B-C	W/1407 - W/1410
Q b 2	Vibrato Buffer		
Q b 3	Buffer		
Q b 4 - Q b 5	Frequency Divider		
Q b 6 - Q b 7	Attack Control		
		BC 109-B-C	W/1412 - W/1409
Q b 8	Preamplifier	} BC 209-B red dot	W/1413
Q b 9	Bass Filter		
Q b 10	General preamplifier		
		BC 109-B red dot	W/1415
D b 1 ÷ D b 3	Diodes	TEXAS D 525 A-B	B/1000 - B/1001
 PA 754	 REVERB BOARD (DWG 3/SE 271)		 6905/1124761
Q c 1	Preamplifier.....	BC 237 A-B.....	W/1401
Q c 2	Preamplifier.....	BC 154.....	W/1500
Q c 3	Preamplifier.....	BC 209 - B.....	W/1407

K0

1 GND
2 GND
3 GND
4 +12V
5 +12V
6 +12V
7 -15V
8 -15V
9 -15V
10 GND
11 GND
12 GND
13 GND
14 GND
15 GND
16 GND

K1

1 G#
2 G7
3 F#
4 F7
5 E7
6 D#
7 D7
8 C#
9 C7
10 B6
11 A#
12 A6
13 GND
14 OR OCTAVE 1
15 OR OCTAVE 2
16 GND

K2

1 T1-13
2 T2-14
3 T3-15
4 T4-16
5 T5-17
6 T6-18
7 T7-19
8 T8-20
9 T9-21
10 T10-22
11 T11-23
12 T12-24
13 E1
14 E2
15 GND
16 STOP MEMORY

K3

1 GND
2 OUT F.B./A.B.
3 SELECT CHORD III
4 SELECT CHORD II
5 SELECT CHORD I
6 GND
7 GND C.
8 OUT CHORDS
9 GND
10 GND
11 OUT PERC. -BRAVO
12 GND

K4

1 GND
2 A0
3 A1
4 A2
5 A3
6 GND
7 GND
8 IS
9 AC
10 GND
11 GND C.
12 GND

K5

1 A
2 B
3 C
4 D
5 E
6 F
7 G
8 GND
9
10 GND
11 +12V
12 +12V

K6

1 I
2 L
3 M
4 N
5 P
6 Q
7 R
8 S
9 T
10 U
11
12

5082/1124772

(PA-884)

LEGENDA CONNECTORS

K7

1 GND
2 TRIGGER ARPEGGIO
3 ARP 1
4 ARP 2
5 ARP 3
6 +12V
7 +12V

K8

1 GND
2 GND
3 OUT ARPEGGIO
4 GND
5 GND
6 GND
7 GND

K9

1 M.C.S. I
2 M.C.L. I
3 M.C.S. II
4 M.C.L. II
5 M.C.S. III
6 M.C.L. III
7 GND

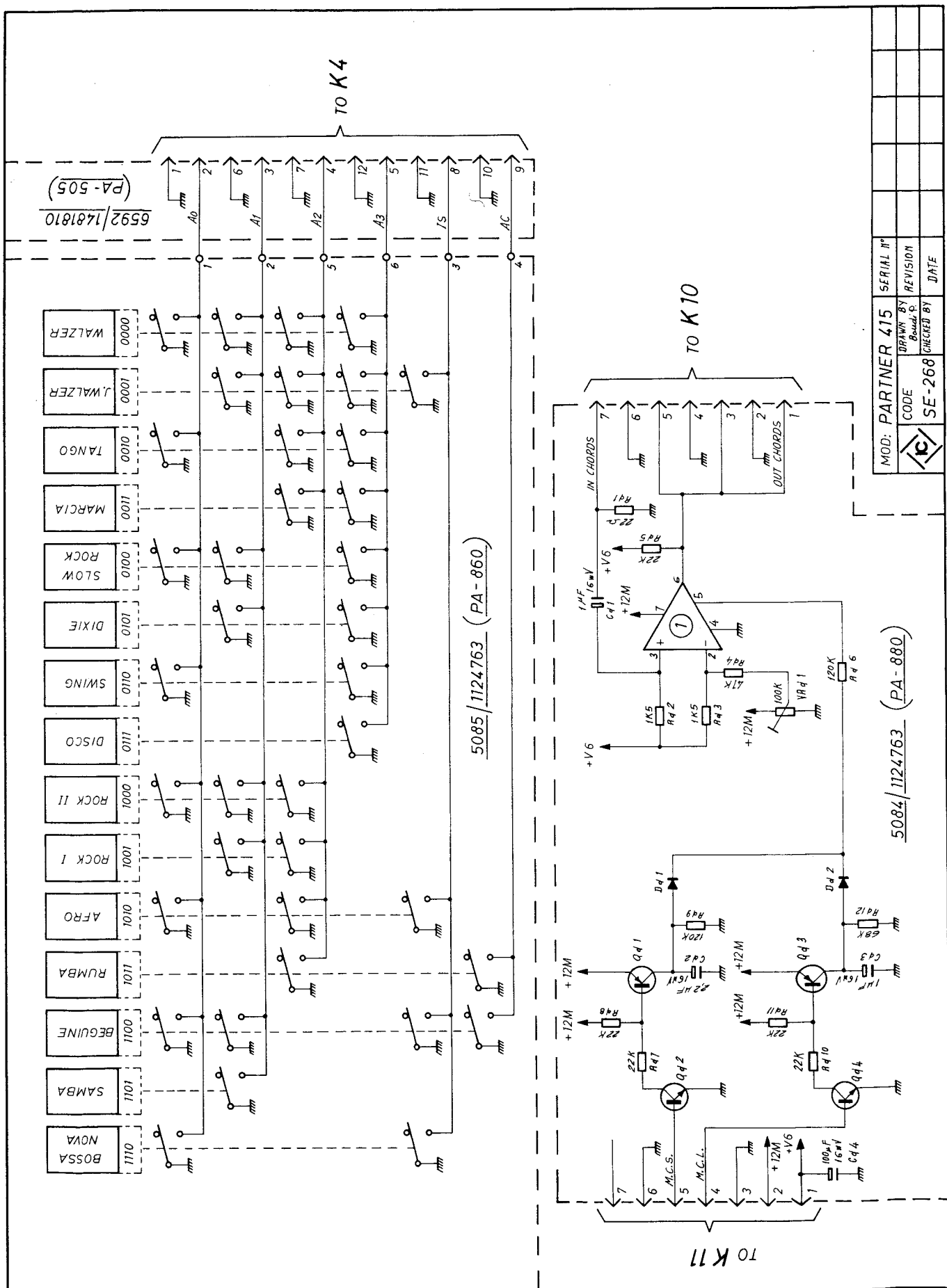
K10

1 OUT CHORD I
2 GND
3 OUT CHORD II
4 GND
5 OUT CHORD III
6 GND
7 IN CHORDS

K11

1 +V6
2 +12M
3 GND
4 M.C.S.
5 M.C.L.
6 GND
7

MOD. PARTNER	415	SERIAL No	
CODE	DRAWN BY	REVISION	
SE-268	CHECKED BY	DATE	



MOD: PARTNER 415	SERIAL N°				
CODE	DRAWN BY	REVISION			
SE-268	BOUND P.	CHECKED BY	DATE		

5084/1124763 (PA-880)

5085/1124763 (PA-860)

PARTNER 415

ELECTRONIC COMPONENT LIST

1

Schem. Ref.	Circuit	Type	Part Code
<u>RHYTHM GENERATION (DWG 1-2/SE 268)</u>			
PA 884/1	Complete with Components		5083/1124763
ICa1-3-15	Hex Inverter	F 4069	W/1169
ICa2-5-17	Quad 2-Input NAND Gate	HBF 4011	W/1150
ICa4-6	Quad Bilateral Switches	4016	W/1164
ICa7-8	Multivibrators	4528	W/1159
ICa9-14-16-18-19	Quad 2-Input AND Gate	4081	W/1156
ICa11	Rhythm Generator	F 257 B	W/1120
ICa12	Rhythm Generator	F 257 A	W/1119
ICa13	Arpeggio, Chord & Bass Accompaniment Generator	F 251	W/1118
ICa20-21	Modulators	CA 3080 E	W/1227
Qa1	Modulator	BC 209-B red dot	W/1413
Qa2-12-15-25	Preamplifiers	BC 209-B red dot	W/1413
Qa3-4	Switches	BC 209-B	W/1407
Qa5	Lamp Driver	BC 209-B	W/1407
Qa6	Bass Drum Oscillator	BC 209-B red dot	W/1413
Qa7	H. Bongo Oscillator		
Qa8	Block Oscillator		
Qa9	Claves Oscillator		
Qa10	L. Bongo Oscillator	BC 209-C SESCOSEM	W/1426
Qa11	Noise Preamplifier		
Qa13-14-22-23-24	Switches	BC 209-C SESCOSEM	W/1426
Qa16	Emitter Follower	BC 209-B red dot	W/1413
Qa17-18	Cymbal Filters	BC 209-B red dot	W/1413
Qa19-20	Piano Filters	BC 209-B red dot	W/1413
Qa21	Banjo Filter	BC 209-B red dot	W/1413
Da1+Da11 Da16-17 Da20+Da33 Da38+Da61	Diodes	D 525 A	B/1001
Za1	Voltage Reference-Zener Diode	4,7V - 400 mW	B/1307
Za2	Noise Generator - Transistor NPN	- -	B/1604

PARTNER 415

ELECTRONIC COMPONENT LIST

2

Schem.Ref.	Circuit	Type	Part Code
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COMMANDS (DWG 1/SE 268)

PA 859	Complete with Components		5086/1124763
Db1 + Db4	Diodes	D 525 A	B/1001
Lb1	Pilot Lamp	12V - 30mA	LL/18
- -	Keyswitches with 7 keys	- -	X/1316

CHORDS (DWG 4/SE 268)

PA 880	Complete with Components		5084/1124763
ICd1	Modulator	CA 3080 E	W/1227
Qd1-2-3-4	Switches	BC 209-B	W/1407
Dd1-2	Diodes	D 525 A	B/1001

RHYTHM SELECTION (DWG 4/SE 268)

PA 860	Complete with Components		5085/1124763
- -	Keyswitches with 15 Keys	- -	W/1315

POTENTIOMETERS

Po1	Tempo Potentiometer	1,5 MOhm Log. inv.	P/286
Po2 - Po3	Balance & Rhythm Volume Pot.	100 KOhm log.	P/266
§			
- -	Decorative Front Plate	- -	PL/584
- -	Knob for potentiometers	- -	MP/48



ELECTRONIC ORGAN

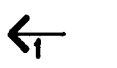
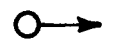
**MOD.
4290 R**

SCHEMATIC DIAGRAM

2nd EDITION

JANUARY '79

LEGENDA

-  **K2.1** FEMALE CONNECTOR SYMBOL (es. K2. 1)
-  PLUG IN CONNECTOR SYMBOL
-  OUTPUT SIGNAL (TO DWG...) or (TO PA-...)
-  INPUT SIGNAL (FROM DWG...) or (FROM PA-...)
-  TEST POINT (TP...)
-  CONNECTING POINT (ON p.c.b.)

All resistors 1/4 unless otherwise indicated

All tabswitches shown in OFF position

All keyswitches shown in OFF position

See part list for component part numbers

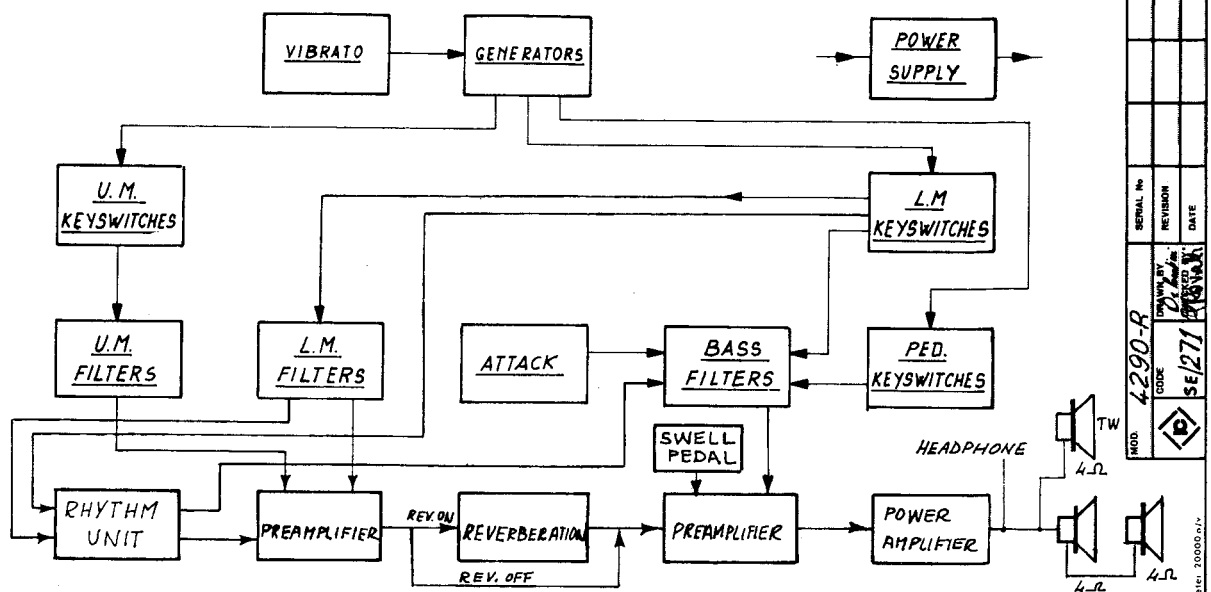
All D.C. voltages measured to ground with a voltmeter 20.000 Ω/V

IMPORTANT : IN ANY CORRESPONDENCE CONCERNING THIS INSTRUMENT ALWAYS INCLUDE MODEL AND SERIAL NUMBERS!

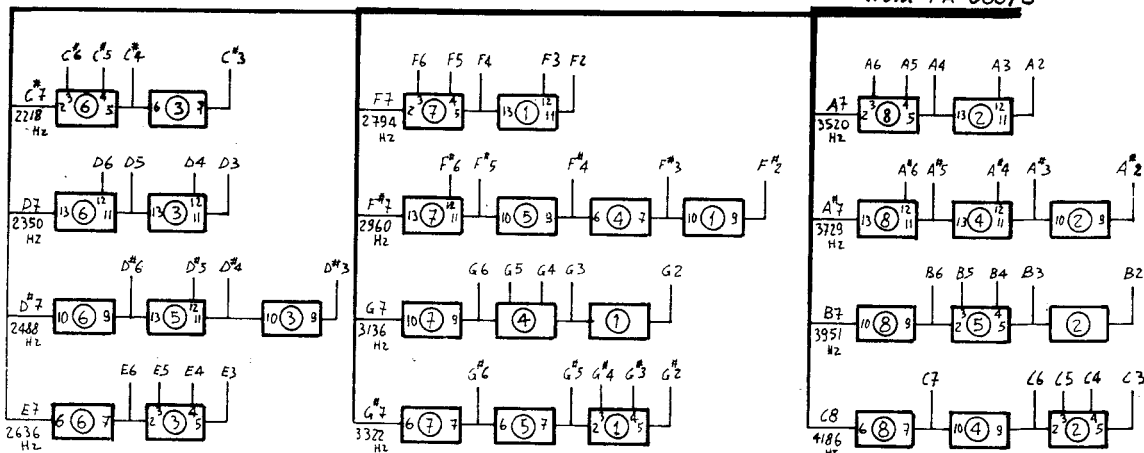
PARTS ORDERING – When ordering parts be sure to include the following information:

1. Model and serial Number of instrument.
2. Part Code.
3. A description of the Part.
4. Specify how you want the part shipped.

BLOCK DIAGRAM



From PA-930/6



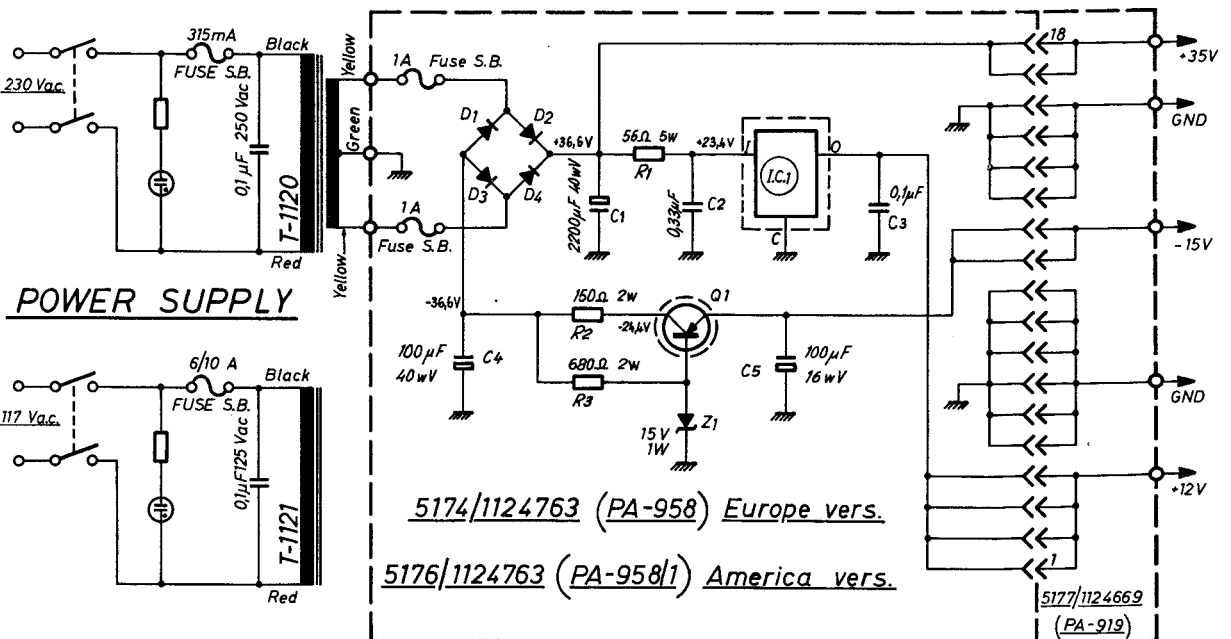
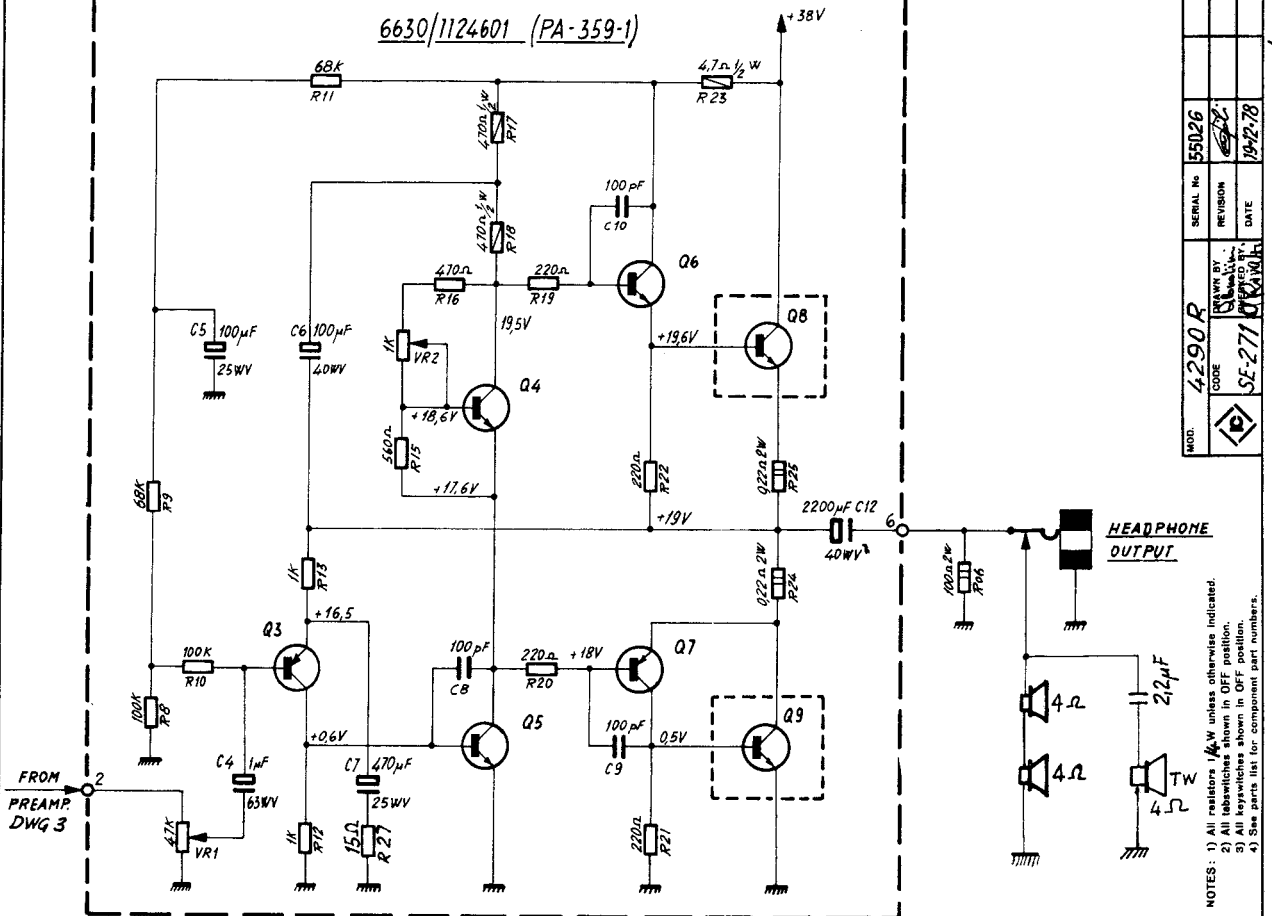
U.M.	16'	I.C.	N°	1	1	1	1	2	2	2	2	3	3	3	3	1	4	4	1	2	4	5	2	6	3	5	3	7	5	4	1	8	4	5	2	6	6	5	3	7	7	4	5	8	8	5	4				
		PIN	N°	11	9	7	5	11	9	7	5	7	11	9	5	12	7	5	4	12	11	5	4	5	12	11	4	5	9	4	3	5	12	4	3	4	11	12	3	4	11	7	4	11	3	9					
	8'	I.C.	N°	1	4	4	1	2	4	5	2	6	3	5	3	7	5	4	1	8	4	5	2	6	6	5	3	7	4	5	8	4	5	4	6	6	6	6	7	7	7	8	8	8	8						
		PIN	N°	12	7	5	4	12	11	5	4	5	12	11	4	5	9	4	3	5	12	4	3	4	11	12	3	4	11	3	7	4	11	3	9	3	12	9	7	3	12	9	7	3	12	9	7				
4'		I.C.	N°	7	5	4	1	8	4	5	2	6	6	5	3	7	4	5	8	8	5	4	6	6	6	6	7	7	7	8	8	8	8	TONE GENERATOR I.C. 42 PA-733-6																	
		PIN	N°	5	9	4	3	5	12	4	3	4	11	12	3	4	11	3	7	4	11	3	9	3	12	9	7	3	12	9	7	3	13	9	7	3	16	15	4	12	13	5	6	12	11	7	8				

L.M.	8'	I.C.	N°	1	1	1	1	2	2	2	2	3	3	3	3	1	4	4	1	2	4	5	2	6	3	5	3	7	5	4	1	8	4	5	2	6	6	5	3	7	7	4	5	8	8	5	4
		PIN	N°	11	9	7	5	11	9	7	5	7	11	9	5	12	7	5	4	12	11	5	4	5	12	11	4	5	9	4	3	5	12	4	3	4	11	12	3	4	11	7	4	11	3	9	



NOTES:
1) All resistors 1/4W unless otherwise indicated.
2) All capacitors shown in pF position.
3) All capacitors shown in pF position.
4) Capacitors listed for component part numbers.
5) All DC voltage measured to ground with a voltmeter 20000-Ω.

POWER AMPLIFIER



N.B. ALL D.C. VOLTAGES MEASURED TO GROUND WITH A VOLTMETER 20000 Ω/V

Model 4290 R

TRANSISTORS (Q) & DIODES (D) LIST

①

Schem. Ref.	Circuit	Type	Part Code
POWER SUPPLY CHASSIS (DWG 4/SE 271)			
	Complete Power Supply - Europe Version		8001/1124763
	Transformer - Europe Version		T/1120
	Complete Power Supply - America Version		8002/1124763
	Transformer - America Version		T/1121
VOLTAGE REGULATOR BOARD (DWG 4/SE 271)			
PA 958	Complete with components - Europe Version		5174/1124763
PA 958/1	Complete with components - America Version		5176/1124763
Q 1	Series Stabilizer	SGS BC 287	W/1702
D1 ÷ D4	Rectifier Diode (Bridge)	IR 10 D 1	B/1100
Z 1	Voltage Reference-Diode Zener (15V - 1 W)	IR 1 Z 15 MOTOROLA 1N4744A	B/1419
I.C.1	Series Stabilizer + 12V	FAIRCHILD μ A 7812 UC	W/1223
POWER AMPLIFIER BOARD (DWG 4/ SE 271)			
PA 359-1			6630/1124601
Q 3	Input Preamplifier PNP	SGS IW 9640 - BC 154	W/1500
Q 4	Temperature Compensator	BC 207 A-B	W/1401
		BC 209 B-C	W/1407 - 1410
Q 5	Driver Amplifier NPN	SGS BC 286	W/1601
Q 6	Driver NPN	SGS BC 286	W/1601
Q 7	Driver PNP	SGS BC 287	W/1702
Q 8 - Q 9	Power Transistors	Westinghouse 156 - 043	W/1800
		Solitron H 9340	
PA 890	L.M. KEYSWITCHES (DWG 2/SE 271)		5090/1124763
D1 ÷ D 48	Diodes	D 525 A	B/1001

Model 4290 R

TRANSISTORS (Q) & DIODES (D) LIST

2

Schem. Ref.	Circuit	Type	Part Code
<u>PA 930/6</u>	<u>OSCILLATOR (DWG 3/SE 271)</u>		<u>6045/1124761</u>
I.C.c1	Oscillator.....	SN 29730 N.....	W/1009
I.C.c2	Divider.....	G.I.E. AY-I-0212.....	W/1105
I.C.c3	Voltage Regulator.....	SN 72723 N.....	W/1209
Q c 1	Buffer.....	BC 208-B-C.....	W/1404
Dc1+Dc3	Diodes.....	D 525 B-BA 130.....	B/1000-B/1003
<u>PA 683/2</u>	<u>KEYSWITCH BOARD U.M. (DWG 3/SE 271)</u>		<u>6903/1124761</u>
IC 1 ÷ IC 7	Integrated Frequency Divider	GIE AY-1-5050	W/1100 - W/1101
<u>PA 593/4</u>	<u>VIBRATO. ATTACK, AUTOMATIC-BASS (DWG 3/SE 271)</u>		<u>5091/1124763</u>
Q b 1	Vibrato Oscillator	} BC 209-B-C	W/1407 - W/1410
Q b 2	Vibrato Buffer		
Q b 3	Buffer		
Q b 4 - Q b 5	Frequency Divider		
Q b 6 - Q b 7	Attack Control	BC 109-B-C	W/1412 - W/1409
Q b 8	Preamplifier	} BC 209-B red dot	W/1413
Q b 9	Bass Filter		
Q b 10	General preamplifier		
D b 1 ÷ D b 3	Diodes	TEXAS D 525 A-B	B/1000 - B/1001
<u>PA 754</u>	<u>REVERB BOARD (DWG 3/SE 271)</u>		<u>6905/1124761</u>
Q c 1	Preamplifier.....	BC 237 A-B.....	W/1401
Q c 2	Preamplifier.....	BC 154.....	W/1500
Q c 3	Preamplifier.....	BC 209 - B.....	W/1407

K0

1 GND
2 GND
3 GND
4 +12V
5 +12V
6 +12V
7 -15V
8 -15V
9 -15V
10 GND
11 GND
12 GND
13 GND
14 GND
15 GND
16 GND

K1

1 G#
2 G7
3 F#
4 F7
5 E7
6 D#
7 D7
8 C#
9 C7
10 B6
11 A#
12 A6
13 GND
14 OR OCTAVE 1
15 OR OCTAVE 2
16 GND

K2

1 T1-13
2 T2-14
3 T3-15
4 T4-16
5 T5-17
6 T6-18
7 T7-19
8 T8-20
9 T9-21
10 T10-22
11 T11-23
12 T12-24
13 E1
14 E2
15 GND
16 STOP MEMORY

K3

1 GND
2 OUT F.B./A.B.
3 SELECT. CHORD III
4 SELECT. CHORD II
5 SELECT. CHORD I
6 GND
7 GND C.
8 OUT CHORDS
9 GND
10 GND
11 OUT PERC.-BRAVO
12 GND

K4

1 GND
2 A0
3 A1
4 A2
5 A3
6 GND
7 GND
8 IS
9 AC
10 GND
11 GND C.
12 GND

K5

1 A
2 B
3 C
4 D
5 E
6 F
7 G
8 GND
9
10 GND
11 +12V
12 +12V

K6

1 I
2 L
3 M
4 N
5 P
6 Q
7 R
8 S
9 T
10 U
11
12

K10

1 OUT CHORD I
2 GND
3 OUT CHORD II
4 GND
5 OUT CHORD III
6 GND
7 IN CHORDS

K11

1 +V6
2 +12M
3 GND
4 M.C.S.
5 M.C.L.
6 GND
7

K7

1 GND
2 TRIGGER ARPEGGIO
3 ARP 1
4 ARP 2
5 ARP 3
6 +12V
7 +12V

K8

1 GND
2 GND
3 OUT ARPEGGIO
4 GND
5 GND
6 GND
7 GND

K9

1 M.C.S. I
2 M.C.L. I
3 M.C.S. II
4 M.C.L. II
5 M.C.S. III
6 M.C.L. III
7 GND

5082/1124772

(PA-884)

LEGENDA CONNECTORS

	MOD PARTNER 415		SERIAL No	
	CODE	DRAWN BY	REVISION	
	SE-268	CH/83	CHECKED BY	DATE

PARTNER 415

ELECTRONIC COMPONENT LIST

1

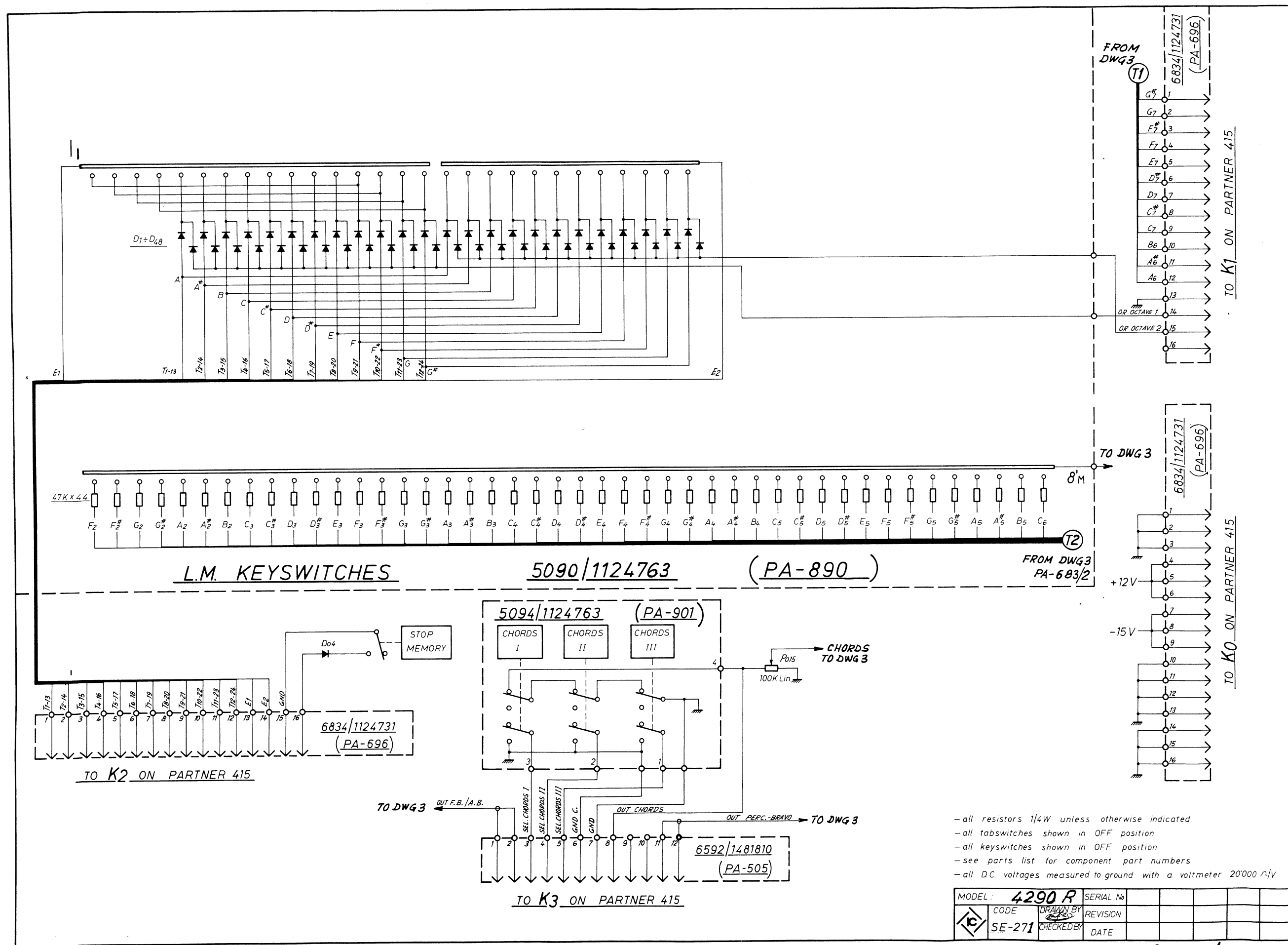
Schem.Ref.	Circuit	Type	Part Code
<u>RHYTHM GENERATION (DWG 1-2/SE 268)</u>			
PA 884/1	Complete with Components		5083/1124763
ICa1-3-15	Hex Inverter	F 4069	W/1169
ICa2-5-17	Quad 2-Input NAND Gate	HBF 4011	W/1150
ICa4-6	Quad Bilateral Switches	4016	W/1164
ICa7-8	Multivibrators	4528	W/1159
ICa9-14-16-18-19	Quad 2-Input AND Gate	4081	W/1156
ICa11	Rhythm Generator	F 257 B	W/1120
ICa12	Rhythm Generator	F 257 A	W/1119
ICa13	Arpeggio, Chord & Bass Accompaniment Generator	F 251	W/1118
ICa20-21	Modulators	CA 3080 E	W/1227
Qa1	Modulator	BC 209-B red dot	W/1413
Qa2-12-15-25	Preamplifiers	BC 209-B red dot	W/1413
Qa3-4	Switches	BC 209-B	W/1407
Qa5	Lamp Driver	BC 209-B	W/1407
Qa6	Bass Drum Oscillator	BC 209-B red dot	W/1413
Qa7	H. Bongo Oscillator		
Qa8	Block Oscillator		
Qa9	Claves Oscillator		
Qa10	L. Bongo Oscillator	BC 209-C SESCOSEM	W/1426
Qa11	Noise Preamplifier		
Qa13-14-22-23-24	Switches	BC 209-C SESCOSEM	W/1426
Qa16	Emitter Follower	BC 209-B red dot	W/1413
Qa17-18	Cymbal Filters	BC 209-B red dot	W/1413
Qa19-20	Piano Filters	BC 209-B red dot	W/1413
Qa21	Banjo Filter	BC 209-B red dot	W/1413
Da1+Da11 Da16-17 Da20+Da33 Da38+Da61	Diodes	D 525 A	B/1001
Za1			
Za2			
	Voltage Reference-Zener Diode	4,7V - 400 mW	B/1307
	Noise Generator - Transistor NPN	- -	B/1604

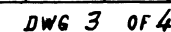
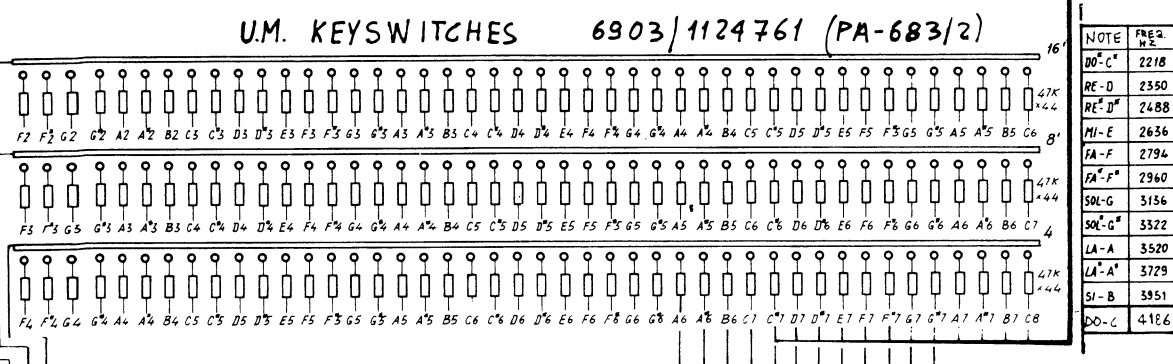
PARTNER 415

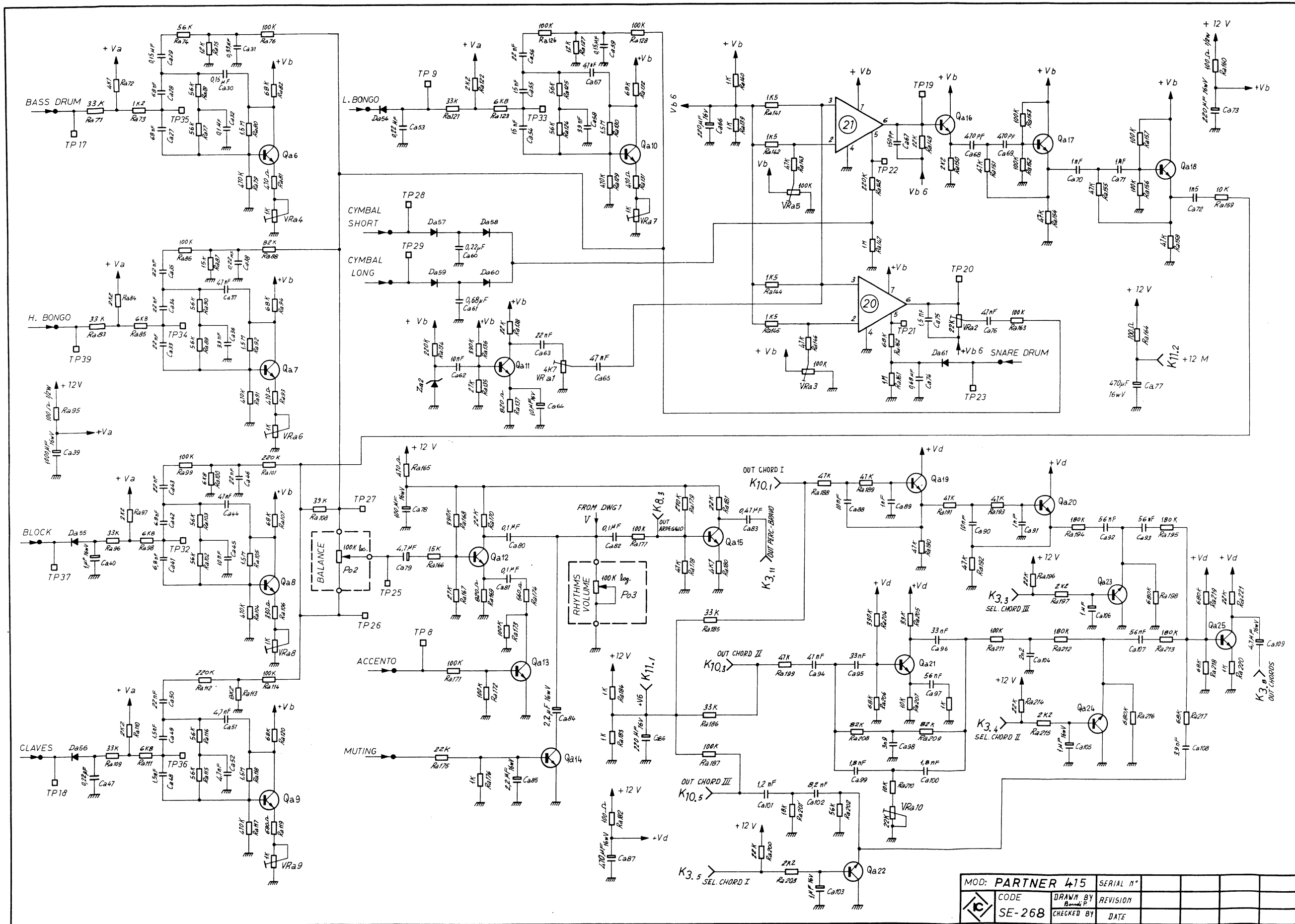
ELECTRONIC COMPONENT LIST

2

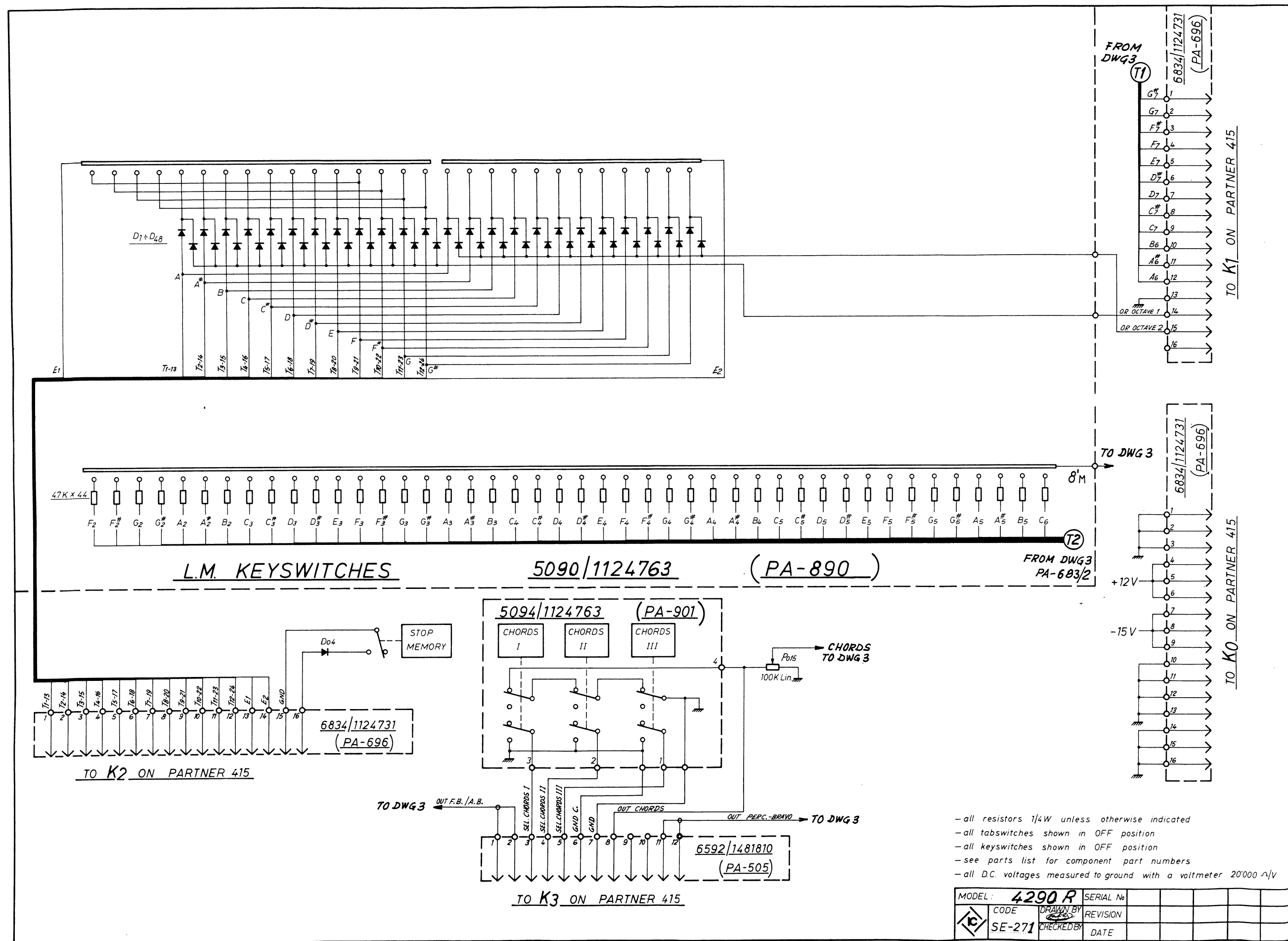
Schem.Ref.	Circuit	Type	Part Code
<u>COMMANDS (DWG 1/SE 268)</u>			
PA 859	Complete with Components		5086/1124763
Db1 + Db4	Diodes	D 525 A	B/1001
Lb1	Pilot Lamp	12V - 30mA	LL/18
- -	Keyswitches with 7 keys	- -	X/1316
<u>CHORDS (DWG 4/SE 268)</u>			
PA 880	Complete with Components		5084/1124763
ICd1	Modulator	CA 3080 E	W/1227
Qd1-2-3-4	Switches	BC 209-B	W/1407
Dd1-2	Diodes	D 525 A	B/1001
<u>RHYTHM SELECTION (DWG 4/SE 268)</u>			
PA 860	Complete with Components		5085/1124763
- -	Keyswitches with 15 Keys	- -	W/1315
<u>POTENTIOMETERS</u>			
Po1	Tempo Potentiometer	1,5 MOhm Log. inv.	P/286
Po2 - Po3	Balance & Rhythm Volume Pot.	100 KOhm log.	P/266
§			
- -	Decorative Front Plate	- -	PL/584
- -	Knob for potentiometers	- -	MP/48







MOD: PARTNER 415	SERIAL N°				
CODE	DRAWN BY	REVISION			
SE-268	Checked by	DATE			



- all resistors 1/4W unless otherwise indicated
- all tabswitches shown in OFF position
- all keyswitches shown in OFF position
- see parts list for component part numbers
- all D.C. voltages measured to ground with a voltmeter 20000 Ω/V

MODEL: 4290 R	SERIAL No				
CODE SE-271	DRAWN BY	REVISION			
CHECKED BY	DATE				



